WHAT IS CLAIMED IS:

1. A method of destroying living cells, the cells being characterized by an ionization threshold, the method comprising:

providing at least one optical pulse having an optical field power smaller than the ionization threshold of the cells while generating conditions for locally increasing said optical field power per unit area beyond the ionization threshold of the cells, thereby destroying the cells via ionization.

2. The method of claim 1, wherein the cells form a part of a pathological tissue.

3. The method of claim 1, wherein a duration of said at least one optical pulse is selected so as to avoid heating of the cells by linear absorption.

4. The method of claim 3, wherein said duration is in a femtoseconds time scale.

5. The method of claim 1, wherein a wavelength of said at least one optical pulse is from about 400 nm to about 1300 nm.

6. The method of claim 1, wherein said generating conditions for locally increasing said optical field power per unit area is by a plurality of particles, at least a portion of each of said plurality of particles is made of a conducting material.

7. A method of destroying living cells, the cells being characterized by an ionization threshold, the method comprising:

administrating a plurality of particles to the cells, each of said plurality of particles, at least a portion of each of said plurality of particles is made of a conducting material; and

directing at least one optical pulse toward at least a portion of the cells;

said particles and said at least one optical pulse are selected and designed so as to provide a local enhancement of an optical field to a power per unit area which is beyond the ionization threshold of the cells, thereby destroying the cells via ionization.

8. The method of claim 7, wherein each of said plurality of particles comprises an affinity component having affinity to the living cells.

9. The method of claim 7, wherein the cells form a part of a pathological tissue.

10. The method of claim 7, wherein a duration of said at least one optical pulse is selected so as to avoid heating of the cells by linear absorption.

11. The method of claim 7, wherein a wavelength of said at least one optical pulse is from about 400 nm to about 1300 nm.

12. A system for destroying living cells, the cells being characterized by an ionization threshold, the system comprising:

an optical device for providing at least one optical pulse having an optical field power which is smaller than the ionization threshold of the cells; and

a mechanism for locally increasing said optical field power per unit area beyond the ionization threshold of the cells, thereby destroying the cells via ionization.

13. The system of claim 12, wherein said mechanism for locally increasing said optical field power per unit area comprises a plurality of particles, at least a portion of each of said plurality of particles is made of a conducting material.

14. The system of claim 13, wherein each of said plurality of particles comprises an affinity component having affinity to the living cells.

15. The system of claim 13, wherein the cells form a part of a pathological tissue.

16. The system of claim 13, wherein the ionization threshold is from about 10^{10} Watts/cm^2 to about 10^{14} Watts/cm^2.

17. The system of claim 13, wherein a duration of said at least one optical pulse is selected so as to avoid heating of the cells by linear absorption.

18. An ablative procedure for destroying living cells present in a body of a subject, the cells being characterized by an ionization threshold, the ablative procedure comprising:

administrating a plurality of particles to the body of the subject, at least a portion of each of said plurality of particles is made of a conducting material;

directing at least one optical pulse toward at least a portion of the cells;

said particles and said at least one optical pulse are selected and designed so as to provide a local enhancement of an optical field to a power per unit area which is beyond the ionization threshold of the cells, thereby destroying the cells via ionization.

19. The ablative procedure of claim 18, wherein said directing is by inserting a light transmitting device into the body of the subject.

20. The ablative procedure of claim 18, wherein each of said plurality of particles comprises an affinity component having affinity to the living cells.

21. The ablative procedure of claim 19, wherein said inserting said light transmitting device into the body is by endoscopy.

22. The ablative procedure of claim 19, wherein said inserting said light transmitting device into the body is by laparoscopy.

23. A light transmitting device for destroying living cells present in a body of a subject, the device comprising:

an optical device for emitting at least one optical pulse having a duration in a femtosecond time scale; and

a waveguide for guiding said optical pulses into a body of a subject;

said waveguide having an emission face, through which said optical pulses are emitted to the living cells, thereby destructing the cells via ionization.

24. The light transmitting device of claim 23, wherein said optical pulses having a wavelength from about 400 nm to about 1300 nm.

25. The light transmitting device of claim 23, wherein said waveguide comprise a fiber optic bundle.

26. The light transmitting device of claim 23, wherein said waveguide is sterile.

27. The light transmitting device of claim 23, wherein said waveguide is covered by a disposable sterile coat.

28. The light transmitting device of claim 23, wherein said at least one optical pulse is characterized by a repetition-rate selected from the group consisting of a low repetition-rate and a high repetition rate.